IOWAccess Project 13

Community Resource Directory Pilot
The Galileo System

Mission

The purpose of Project 13 was to design and implement an integrated, locally accessible information system through which the people of Iowa could easily access information on community resources, as well as sign up for programs they determined would be helpful to them. The system would also collect demographics and service profiles on Galileo users to help service providers and community planners better understand the community and its needs.

List of Members

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Section 1 ▪ Approach

Background Information

The concept for Project 13 Community Resource Directory Pilot arose from the Human Services Work Group of the Intergovernmental Information Technology and Telecommunications Task Force, established by Governor Branstad in 1996 to identify the top technology needs in Iowa. The Human Services Work Group submitted a number of ideas. The Community Resource Directory Pilot, known now as Galileo, was selected by the IITT Task Force as the best way to enhance the public's access to human and community services; and to make access and enrollment to services less institutional and more seamless.

After an extensive request for applications process, a collaborative group from Linn County was selected as the pilot site to implement this new system. In Linn County, planning for a system like Galileo began in 1995, when a series of community problem-solving meetings were held to strategize better ways to access services, streamline intake procedures, and reduce people's needs to make multiple trips across town, where they had to repeat their "stories" time and time again.

Among the contending ideas, the Human Services Work Group ultimately chose the idea of creating an internet system that would allow citizens to look up human service and community resource information twenty-four hours a day, apply for services from public-access sites, and streamline existing processes for providing information and referral throughout the state of Iowa.

Description: Purpose & Goals

Project Purpose
To establish a pilot computerized, consumer-friendly information and referral and limited enrollment system that would provide all members of   the pilot community with direct, private, and anonymous access to information about community resources, and the limited ability to enroll for services from an array of sites in the community.

Goals
1. To build a pilot or prototype system that includes comprehensive information and referral on community services, and partial self-application and eligibility determination that is available to citizens by July 1, 1998.

2. The system will include the following types of services in the information and referral database: child/dependent care, health and mental health care, housing, transportation, federal benefit programs, public and privately provided human services.

3. To increase usage of the pilot or prototype system over time, from July 1 - September 1, 1998.

4. To increase consumer satisfaction with information available on community resources and with self- application and limited eligibility determination.

5. To increase provider satisfaction with information available on community resources and with self-application and limited eligibility determination.

6. The system will provide at least one link with a state agency, allowing for self-application and limited eligibility determination.

7. To increase self-applications over time, from July 1 - September 1, 1998.

8. The system usage information will support and help determine community identified goals and planning.

Citizen-Access

The Galileo system creates a "family-friendly" computerized community information system that consolidates social service, health care, and training and job information through an interface average citizens and system participants can use. People can enter thirty fields of basic information about themselves – data elements generally required by most community agencies for eligibility determination. Once a person determines which programs he or she is interested in, and at the citizen's request, the Galileo system sends the person's file to that agency by fax, e-mail, or data record.

The citizen interface, called "The Resource House," is designed to imitate a physical resource center with distinct rooms. The way this system is designed, users have several options:

- users can take a "tour" of the Resource House to help them understand the scope and depth of information available to them;

- visit the "Resource Library" where they can explore topics of interest in the comprehensive database of health, human, and social services;

- stop in at the "Biography Room" where they complete their confidential personal file;

- put in a request for child care referrals in the "Child Care Room;"

- store their information and review it in the "Guest Room;"

- and forward their enrollment information in the "Communications Room."

The internal Galileo Mail system lets people ask questions of providers and, because many in the community do not have their own e-mail accounts, receive replies directly in " The Resource House." Each room has a different "guide" who helps users navigate the system; photographs and voices further enhance the system's ease of use for those who have little or no previous computer experience.

Professional-Access
The Galileo system allows organizations to specify the enrollment data they require in the sequence that best approximates their current intake procedures. Organizations can integrate Galileo enrollment data directly into their MIS systems, so staff need not re-enter these fields by hand.

Service providers can go on-line to update their own listings as frequently as they wish on-line, thereby increasing the accuracy of the overall database and the marketing of their services. Staff involved in helping clients locate appropriate services can use either the public-access system, written at the fifth grade reading level, or the stand-alone Counselor Version. These up-to-date resource systems are far preferable to what most communities use now—either quickly outdated printed directories or "directories on disk" that tend to be updated quarterly, semi-annually, or annually. Galileo thus helps staff develop case plans more effectively and efficiently.

Process Used & Who Was Involved
Project Team
A Project Team was established to oversee the implementation of Project 13. The team was comprised of representatives from all levels of government and private non-profit human service providers. The composition of the team changed over the duration of the implementation phase, having lost one project lead early in the process and waiting for several months until a new lead was named. With the addition of the pilot site and vendor, the size grew and complexion of the team expanded a great deal.

Funding
The General Service Administration (GSA) through IOWAccess funded development of the Community Resource Directory Pilot. The Family Resource Development Association (FRDA) responded to a request for applications issued by IOWAccess Project 13 to become the pilot community that would develop and implement this information and enrollment system. Having been chosen as the pilot site, representatives from the FRDA collaborative helped review the vendor proposals, and chose North Light, Inc. as the system developer.

Local Partners
The Linn County community had been exploring since 1995 how to implement a technological solution like Project 13 and was therefore strongly appreciative of the system's potential. This

preparation made it possible to quickly launch the project. Both FRDA and the Linn County community contributed to North Light's design - a system capable of meeting the twin goals of easy consumer access and helpful statistical reports for providers and planners.

FRDA community organizations committed themselves to a wide range of implementation responsibilities and to help assure timely completion of the project. Strong collaborative relationships proved vital to the project's complex and demanding implementation schedule. FRDA provided strong oversight of the system development locally, while the existing FRDA committee structure assured sufficient staff for the system's realization.

Databases and Equipment
The new Galileo system required the Regional Information Hub at United Way of East Central Iowa to add a number of data elements to the already existing I&R database, and to translate all of the information into a fifth grade reading level. Wide public access required the purchase of 15 personal computers: two were placed at the Regional Hub for database maintenance, and thirteen were placed at pilot sites for consumer use. "Committed public access sites" were chosen among FRDA members in Linn County. HACAP's ChildCare Resource and Referral database was already computerized, and a Child Care Room was created to streamline consumer requests into their service. Additional grant funds were secured for the purchase of two private units – called "Galileo Portals" - that could be left unattended in such public access lobbies as the Ground Transportation Center, the Department of Human Services office, or corporate cafeterias.

Timeline
The Galileo project began in December 1997 and launched the consumer friendly Internet software at twenty-two public access sites in September 1998. These sites beta-tested the software and offered support to users. The replication of the Galileo Project to other communities across the State during the next three years will be coordinated by Iowa Workforce Development.

Levels of Government, Participating Agencies & Constituencies
The Galileo System was planned and implemented by the Project 13 Team and a local Implementation Committee, consisting of representatives from various state and local governmental departments and human service agencies: Department of Human Services, Iowa Workforce Development, Iowa Communications Network, Education, Health, and County. Eighteen representatives on the state level committee and 10 on the local implementation committee reported back to the full FRDA. Monthly meetings were held by ICN teleconferencing with the State group; and semi-monthly sessions were held with the local Implementation group. Later, project leads and North Light participated in the semi-monthly sessions via ICN telephone conferencing capabilities.

The local FRDA group is a four-year old collaboration that includes thirty public and private

human service organizations in Linn County. The Association's Mission is: "*To invest in the success of families through a community partnership that integrates services into diverse neighborhood and community support systems.*"

The collaborative has been successful in securing a variety of grants and resources to design and implement several integrated neighborhood-based service delivery systems.

FRDA members include:

- Abbe Center for Community Mental Health
- Aging Services
- Alburnett School District
- Alternative Services
- Catherine McAuley Center for Women
- City of Cedar Rapids
- Cedar Rapids Community School District
- Center Point-Urbana Community Community School District
- Corrections Improvement Association
- Community Corrections (Sixth Judicial District)
- Family Service Agency
- Foundation II
- Four Oaks
- Grant Wood Area Education Agency
- Hawkeye Area Community Action Program (HACAP)
- Jane Boyd Community House
- Kirkwood Community College
- Linn County Department of Human Services
- Linn Co. Dept. of Human Resources Management
- Linn County Extension Service
- Linn County Health Department
- North-Linn Community School District
- St. Luke's Hospital
- Tanager Place
- Taylor Area Neighborhood Association
- United Way of East Central Iowa
- Visiting Nurses Association
- YMCA
- YWCA
- Young Parent's Network

Citizen Involvement

During its first phase, the Galileo project placed a public access Internet unit at each of the following sites:

- Brownstone Family Resource Center
- Cedar Rapids Public Library
- Workforce Development Centers 7th Street and Promise Jobs
- Kirkwood Community College main campus
- Downtown Resource Center and Lincoln Learning Center
- Catherine McAuley Center for Women
- HACAP Inn Circle
- Family and Community Health Alliance
- Department of Human Services
- YWCA lobby
- Domestic Violence and Madge Phillips Homeless Shelters
- Metro High School
- Taylor Area Family Resource Center in Taylor Elementary School
- Linn County Health Department
- Tanager Place
- Foundation 2 Crisis Center
- The Ecumenical Community Center (added later)

Each site asked 5-15 targeted citizens to "try out the system" and encouraged other walk-in consumers to try Galileo. Users completed evaluation forms and providers noted their observations on how easy or difficult the system appeared for consumers to use. Two additional focus groups were held, one in Des Moines and the other in Cedar Rapids, where a variety of people were asked to view the system and give their opinions about it.

September through November, these feedback tools were used by North Light to beta test and debug the system. A Galileo User's Group was established for the purpose of exchanging information about the new system, and the Cedar Rapids Public Library set up a list-serve to facilitate these interactions.

Needs Assessment

The Galileo system addresses a fundamental need our communities have for easily accessible services and supports. This need has expressed itself in several ways.

- Consumers need a way to navigate a community's resources that is less confusing, more convenient, and allows anonymity if desired.

- Providers need a more efficient, timely way to communicate accurate, current information on available services to citizens.

- Communities need accurate information on the array of services available.

- Iowa needs a more effective and efficient method to inform its citizens of resources

available to them in their community, nearby communities, or in the state.

- Consumers, providers, and funders need a more cost efficient, streamlined, and user-friendly method for service eligibility determination and enrollment.

Linn County and FRDA identified additional needs as well as to how Galileo addresses those needs:

1. Public opinion surveys have found that the general public lacks basic information about community services, a primary barrier to contacting and accessing support. The Galileo system addresses this fundamental need by offering user-friendly information in a wide range of locations, 24 hours a day.

2. In the summer of 1995, FRDA sponsored twelve consumer focus groups with low-income families in Linn County. The top three "unrecognized needs" people identified were transportation, affordable childcare, and emergency food. Separate focus groups conducted by Kirkwood Community College in the fall of 1996, Kirkwood Community College convened focus groups determined the barriers low- income families faced in their job training efforts. Childcare, the cost of higher education, and transportation were at the top of their list. Although the Galileo system does not directly provide transportation, it will help reduce the amount of travel people face in order to find out what resources are available or apply for those services.

3. What has been identified as an "accessibility need" by working families is also a question of the hours that services are available. While FRDA successfully created a system of neighborhood-based Family Resource Centers, the collaborative still faced challenges in having these centers open at times when working families can get to them. The Galileo System will make it possible to obtain information and apply for a range of community services during evenings and weekends from a variety of locations, including someone's home via Internet connection.

4. Linn County's Empowerment Area and earlier Innovation Zone applications cited fragmentation and community data problems as fundamental infrastructure issues, which must be addressed. The need for a more integrated human service system through which families could provide up-to-date accurate information on income, family status etc. for use by multiple agencies, without going to several places or filling out multiple forms was also identified. This is one of the features of the Galileo system.

5. A last organizational need, one that faces both governmental and private not-for-profit organizations, is the issue of stable or declining revenues-- trying to do more with less. Galileo offers a solution to this problem by streamlining the intake process, improving

public awareness of services, providing staff with an effective resource tool, and centralizing data provisions to information and referral services.

Approach

1. The approach for developing the Community Resource Directory was developed by the Project Team. It was determined that the pilot site should be selected first, so they would have the opportunity to participate in the selection of the vendor. A request for applications was developed by the Project Team and mailed out across the state to solicit applications from interested communities. Three applications were received, and the Project Team selected Linn County FRDA.

2. State and local representatives jointly selected a vendor, (North Light, Inc.) based on its demonstrated ability to design this complex software system, its experience with previous state and national human service reform efforts, and its commitment to encourage system efficiencies, empower the public to be able to access to human services on their own, streamline intake procedures, and enhance I&R systems' ability to make current resource databases available to both consumers and professional caseworkers.

3. The technological innovation represented by the Galileo system allowed a unique opportunity for community organizations to relate to each other in new innovative ways, enhancing knowledge at a line staff level and a feeling of connectedness in being a part of a greater community plan to resolve area needs.

4. State and local implementation committees were established and implementation timelines were developed to keep project participants on schedule.

5. The seamless Galileo system was designed by North Light to allow regional Hubs to maintain and update resource databases, which feed into a consolidated, statewide database residing on the Web and perhaps eventually, the national database system. This regional approach fit well with the districts of Iowa Workforce Development, the state organization serving as sponsor to take the pilot system across the state of Iowa. It also addressed the regional focus of most Information and Referral organizations.

6. I&Rs have been the primary source for comprehensive resource tools (phone interview and referral services, print directories, directories on disk, internet access, etc.) in many communities across the nation for the last two or three decades. The National Alliance of Information and Referral Services AIRS, has with United Way of America, established operation standards for the operation of I&R services, and developed both staff level certification and organizational accreditation processes. Galileo has been designed to build on the strengths and not duplicate the services of these I&Rs. Galileo offers the

option for I&R's to become the regional hubs in maintaining the detailed databases of local services. By doing so in Iowa, they receive the Galileo hub software, a comprehensive I&R software for daily resource data maintenance and powerful referral search tools, Galileo Counselor software, a downloadable professional version (like directories on disk), and planned features for a client/case management database. In Iowa, where there are no I&Rs willing/available to serve as these hubs, the local IWD office will fulfill that function.

7. The local Information & Referral service at United Way of East Central Iowa served as the lead organization in the implementation of the Galileo system. United Way provided top level staff support, office space and supplies, as well as, the ability to build the Galileo database by enhancing the already well established I&R database and service provided in the Cedar Rapids area. Currently the database consists of over 800 agencies, 2800 program or service, and 1500 site listings to address the greater Cedar Rapids area.

8. The Hawkeye Area Community Action Program (HACAP), sponsoring the regional Child Care Resource and Referral, also provided top level staff to determine the most appropriate and effective methods to integrate the screening of requests and provision of provider data into the child care section of the Galileo system.

9. The local implementation committee consisted of top level officials from a number of state, county, and human service programs, all working together to resolve issues and oversee the implementation of the Galileo system. This local group met semi-weekly and reported progress and issues monthly at full Family Resource Development Association meetings.

10. To meet the timeline for full implementation in nine months, the United Way of East Central Iowa hired temporary staff (3 FTE's for 5 months) to update the entire database of health, human and social services, and to secure the additional data elements (details on eligibility, documents to bring to appointments, direction, etc.) needed to enhance the I&R system to support Galileo. One full-time position (utilizing grant funds) was added to the I&R staff to maintain this expanded database and help support the pilot sites.

11. Pilot sites were selected from existing FRDA members because they had already committed to the concept of system reform, worked well together, and had a desire to try this new system.

12. Monthly meetings began with representatives from selected pilot sites three months prior to actual beta testing at those sites to discuss information and training needs, site

requirements, and ongoing support. A communication system and Galileo "User's" Group were established to enhance the implementation and testing of the system in the Cedar Rapids area.

13. Evaluation surveys were developed and reviewed by an expert from the nearby University of Iowa. United Way offered the use of its survey development and reporting software for monthly monitoring of feedback on the Galileo system. Surveys will be entered from the point of view of: consumers, observers, providers, and regional hubs supporting the database.

Evolution of the System Over Time
The concept for the Galileo system evolved from a software that would reside both on local hard drives and a state level file server, updated by modem, to a fully integrated internet software to increase citizen access via home computer systems. The hubs will have resident software enabling them to perform daily database maintenance functions, and the IWD will host the state file server, to be accessed by any citizen or provider agency with modem and Internet browser software. Local providers will be able to download a faster Counselor Version (that can be updated from the state server on demand via modem) as a resource tool for their case management staff. This latter product will be available for a subscription fee as part of the system sustainability plan.

Section 2 ■ *Cost/Benefit Analysis*

Timeline for the Galileo System

The implementation of the Galileo System occurred over an eleven-month period with the planning and implementation stages overlapping. Evaluation will more effectively occur in year two of the system.

	Month	*Activity*
Planning	November '97	▪ Initial planning meetings. Establish revised timeline.
Planning	December '97	▪ Planning hub interface.
Planning & Implementation	January '98	▪ I&R received initial Galileo software and training from North Light. ▪ Planned interface screens for agency information partners. ▪ Determined Spanish to be second language for Galileo system.
Planning & Implementation	February '98	▪ Finalized list of public access sites for Phase 1 of project, and surveyed their equipment needs.
Planning & Implementation	March '98	▪ 60% completion of taxonomy/keyword linkage table. ▪ Submitted funding proposal to Greater Cedar Rapids Foundation. ▪ Presentations to IOWAccess State-wide Committee, Community Leaders, Kirkwood national up-link, discussions with I&R staff in state ▪ ChildCare R&R's met to discuss Galileo and how to integrate their services.
Planning & Implementation	April '98	▪ Write and run taxonomy/keyword conversion for Galileo. ▪ Decided eligibility issues too complex to do comparative search in Galileo. ▪ Drafted initial 30 enrollment fields to be used in Galileo system. ▪ Planned orientation session for pilot sites. ▪ Local presentations to officials.
Planning & Implementation	May '98	▪ 100% taxonomy/keyword linkage table ▪ Hosted orientation session for public access sites, planned training needs. ▪ Co-hosted meeting of I&R services in the state re support of Galileo system. ▪ State subcommittee met to discuss rollout and marketing issues.

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	Month		Activity
Planning & Implementation	July '98	▪	Decided to postpone Spanish translation to a future phase of the implementation of Galileo - after initial systems up and debugged.
		▪	Ordered equipment for state server, Hub and 13 of selected public access sites.
		▪	Developed evaluation tools.
		▪	Hosted second pilot site information meeting.
	August '98	▪	100% taxonomy/keyword linkage table, checking keyword consistency
		▪	Hosted 2 trainings for 31 staff from 21 pilot sites on review of internet browsing, setting up Galileo, use of Galileo, beta testing, consumer and provider surveys. Sites picked up their PC's.
	September '98	▪	Completion of update and data entry, and moved into maintenance mode.
		▪	Initial evaluation consumer /public usage of Galileo system at public access sites - feedback via surveys and User's Group meeting.
		▪	Begin testing consumer use of Galileo I&R system at selected public access sites.
		▪	Promote public use of Galileo system at public access sites.
		▪	Completion of two focus groups.
		▪	Feasibility study completed regarding statewide rollout.
	October '98 on.....	▪	Draft final report to IOWAccess Statewide Steering Committee.

Project Expenditures

	Original Budget	Projected Expenses through 9/30/98	Proposed Expenses through 6/30/99	Proposed Expenses 7/1/99 through 6/30/00
Project 13 - FRDA Funding	57,800	57,800		
Project 13 - North Light Funding	5,000	5,000		
Purchase 15 new PC's*	37,600	37,600		
GCRF Funding	10,000	10,000		
Local Carry-Over Funds			11,690	
Other Funds- IOWAccess Project 13 balance			15,750	

Other Funds-IWD? ($178,000?)			6,890	42,940
Total Revenues	110,400	110,400	34,330	42,940

Line Item - Expenses

Taxonomy -Keyword Linkage Table		5,000		
Database: incl. updating, transfer, cleanup, 5th grade & Finish Literacy	23,400	33,299		
Second Data Manager I&R		3,686	22,113	29,484
Train & support pilot sites, Evaluation, Reports	13,200	6,625	8,217	10,956
Purchase server and 15 PC's	37,600	37,600		
Marketing Materials	2,000			
Upgrade United Way-ECI modem		*2,500*		
Tech Assistance	1,200			
Starter Kit for Roll-Out (15 kits)			1,500	
Tech Assist for Roll-Out			2,500	2,500
Install Galileo Portals		10,000		
Spanish Conversion	18,000	0		
Total Galileo Expenses	95,400	98,710	34,330	42,940
Total Carry-Over/Needed	15,000	11,690	0	0

Ongoing Costs to Maintain Galileo System
Based on a feasibility study conducted by SPPG:

1. Conversion of data from I&R software to Galileo $3,000
2. Hub hardware/software $1,948
3. Public Access hardware @$800 each site with a regional population of:
   - 0-25,000   3 sites
   - 25,000 - 50,000   5 sites
   - 50,000 -075,000   7 sites
   - 75,000 - 100,000   10 sites
   - 100,000 - 150,000   12 sites
   - 200,000+   20 sites
   - Area 10 hardware costs projections $20,000
4. Internet based Galileo training program $30,000, will allow all users to access on demand, easy to update and all users receive simultaneous new data.
5. Additional staff time/costs to expand I&R databases varies per region:

- Rest of IWD SDA 10 $24,120
- IWD SDA 1 $80,063
- IWD SDA 2 $30,413
- IWD SDA 11 $219,860

6. Ongoing maintenance costs will also vary from region to region; Area 10 is estimated at $31,000 per year.
7. Revenues may be generated to help sustain the Galileo system through:
   - Marketing of the Professional- Counselor version to human service organizations and human resource departments at corporations.
   - Potentially charging listing fees for services listed in the Galileo database.
   - Corporate or third party sponsorship of the system, perhaps to underwrite a second language translation.

Project Benefits

The benefits of Galileo to a community and the state are numerous:

Prior to Galileo, no automated, Internet accessible community resource directory existed. In fact, no comprehensive, automated community resource directory existed in Iowa. There is no cost data of previous systems with which to compare and develop a cost/benefit analysis. The Project Team has identified benefits to taxpayers and the community.

Galileo offers both consumers and service providers the opportunity to streamline the intake process. By receiving consumer applications via fax, e-mail, or data file transfer prior to the first appointment, service providers will be better prepared to meet the consumer, and consumers will be better prepared to apply for needed services.

Consumers accessing the system will have better information about program eligibility requirements; a list of documents they should bring along; (i.e. drivers license, last year's tax forms, pay check stub, etc.) the opportunity to send questions to program staff to check on eligibility before they make an appointment; and detailed directions to the selected office.

Consumers will be empowered to apply for multiple services from a local public access site by completing the initial enrollment form once, then choosing which programs they would like to release that personal profile to. They can send and receive Galileo-mail to ask program staff to clarify their interest/eligibility for a service before seeking transportation across town. The system puts people in control of locating and accessing the services that can best help them, helping them to develop necessary skills for self-sufficiency in this era of welfare to work emphases.

Utilizing the ASCI format, organizations like IWD can view the first 30 data elements about potential customers already integrated into their database records. Galileo allows the Hub

database managers to list which enrollment fields, in what order, and by which method (fax, e-mail, data file) each program wants to receive them.

The Galileo system also can provide front-line staff doing casework functions the effective tool of a current and comprehensive database of local helping services either through the public Internet version or a downloadable Counselor Version that has a powerful search engine, and the ability to select and print directories.

The Galileo system is available 24 hours a day, seven days a week via the Internet. It has been written at a fifth grade average reading level to meet the needs of the general public, and can be available in up to eight languages determined by each Hub region to address the needs of varying local population groups.

The agencies listed in the database can sign-in at the Agency Annex to submit changes and updates regarding their service and site listings. This may reduce the need for regional Hub services, like Information & Referral programs, to contact these organizations for updates and will enhance the accuracy and timeliness of the overall database.

Iowa Workforce Development or the Department of Human Services can describe and/or update their program and site listings one time and have it available for Information & Referral programs and consumers all across the state simultaneously. This will reduce the number of inquiries for service data from state departments and improve the accuracy of listings.

Section 3 ▪ *Evaluation*

Process (criteria and methodology)
What will be evaluated?
The ongoing evaluation plan covers the primary deliverable the Citizen Version of Galileo.

The professional stand alone version, Counselor, will need to be evaluated as well, when it is up and running, and debugged.

Because these versions have different users, these will require separate evaluation processes, with different questions being asked. The complexities of the project necessitate sequential implementation and thereby elongated evaluation timelines. To put the system complexity in perspective, there are: over 900 agency master records; over 2800 service records; over 1200 site records; and over 3000 link records, for a total of over 200,000 data fields. There are hundreds of Galileo program pages and countless linkages back and forth. This high level of complexity forced the project to slow down its timelines. The first priority task has been to get the Citizen Version up and functioning in every capacity, then we will implement and debug the Professional Version.

Who will be involved in the evaluation?
Citizen version – Actual and potential users of Galileo – a cross-section of citizens with varying degrees of experience using computers, different education and socio-economic levels, as well as, Galileo Hub staff and key volunteers with oversight responsibilities.

Professional version – Professional staff who use the system to refer clients, as well as, Galileo Hub staff and key volunteers with oversight responsibilities.

What is the timeframe?
The evaluation of the Citizen version requires multiple phases of evaluation, which sometimes overlap.
- Phase 1 consisted of designing and hosting two Focus Groups, one in Cedar Rapids and one in Des Moines to gather citizen reactions and feedback on Galileo at that stage of its implementation. These Focus Groups took place on September 2nd and 8th 1998.

- Phase 2 started in August, and continues now. Evaluation surveys were developed, refined and completed by citizens using the system and by the staff of the Pilot Sites implementing and supporting Public Access Sites. Pilot Sites turn in surveys completed by citizens at monthly Galileo User's Group meetings, while the staff at the sites are being asked to complete "provider" surveys quarterly. These are then tallied with survey analysis software by United Way of East Central Iowa and periodic reports

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generated.

- Phase 3 involved the surveying of key stakeholders at all levels of Galileo implementation about the "lessons learned" in designing and implementing such a complex information and enrollment system. This was done in December 1998 and will be done annually as the Galileo project completes all phases of initial implementation and moves from "beta testing" to full operation across the Sate of Iowa.

- Phase 4 the evaluation of the professional version will begin as soon as the primary Citizen version is running smoothly and has been tested by the Pilot Sites - most likely Spring1999.

How is the system evaluated?
Phase 1 – (Citizen Version)
This phase addressed cosmetics – the way the system looks and is understood by the users, and the ease with which they are able to navigate through to locate needed information.

Two focus groups were conducted in Des Moines and Cedar Rapids in early September. The focus groups consisted of 22 and 14 participants, respectively. The participants represented a mix of populations, including:

- Individuals on state or federal assistance
- Unemployed persons
- People with disabilities
- Minorities - (African American, Asian American, and Hispanic)
- English Speaking Immigrants (West Africa, Mexico, Bosnia)
- Older Iowans
- Librarians
- Human Service and Other Providers
- Business people and other professionals
- Non-profit organization staff

Each addressed issues raised by the Citizen Council, such as the amount of information entered on each screen, the names of the guides, and the degree of difficulty in searching for the desired information. In addition, we will measure the general satisfaction and degree of helpfulness of the system.

A summary of the focus group findings follows:

Value of Galileo
The value of a system which puts community resource information in a single repository was undisputed. Participants recognized the system as beneficial to themselves and others in their community, although the lack of computer skills or Internet experience could deter some from

using it.

Content of Galileo
It was impossible in a two-hour focus group to demonstrate all the information contained in Galileo. Participants were impressed by the breadth of information included in the system. They did feel that the categories needed to be better clarified (i.e. types of people; money; people receiving government services).

The participants suggested the following information and categories be added to Galileo:
1. List of voluntary organizations or opportunities to volunteer
2. Poison control information
3. Birth certificates
4. Register to vote & absentee ballot requests
5. Rides to the polls/poll locations
6. General safety category
7. Fraud section (how to report it, tips to avoid it)
8. Consumer information
9. Drug and substance abuse

Organization of Galileo
The main drawbacks continue to be the time it takes to get through the system, the slowness of the system, and the number of screens a user must scroll through to get information. Librarians were highly critical of the number of screens and the structure of Galileo, commenting that it is not designed the way people think and it is to time-consuming to be of use to someone who has limited time on a computer in a public library or other public area.

There were several suggestions on adjustments that could be made to take care of this:

1. Search engine on first page. The search engine should search in a number of ways, including by situation (i.e. domestic abuse), category (family counseling services), and by agency (United Way).
2. Consolidate questions onto single form to save time.
3. Categories of services should be within a click of the first page. Should be a checklist (instead of having to go through the whole system for each service category desired).
4. Categories of services need to be clarified. Develop a longer list instead of one list which is not easily understood and a second more detailed list.

Generally, the comments encouraged the system to be more streamlined and easy to use for those wanting information quickly. The comments reflected individual ways of looking for information, and the system should be designed to accommodate those multiple ways people access information.

<u>Design of Galileo</u>

There were many reactions to the design of Galileo – some loved the use of characters and others found them patronizing. Generally, the design of the system seemed to work for the majority of users if information was easily accessible from the first page. Computer novices and experts were the most appreciative of the system's design, and especially the humor of it. Moderate users and librarians were the most critical of the design.

Several people noted that they did not understand the relationship of Galileo with the community resource directory, and did not see an obvious link between the system and government. Most participants did not mind that the page did not look like an "official government" website – until privacy and confidentiality issues were brought up. There was significant concern about entering personal information into the system, because it was not known where that information would end up.

Several recommendations were made by the focus group participants:

1. Make the characters modern (not fairy tale), like "May the tour guide." However, many liked "Max the Messenger" for the humor and thought his character should be left in for comic relief. Participants liked the personal touch of the photos, but did not see the relevance of the quills and antique outfits. Modern photos would increase the professionalism and eliminate some confusion.
2. Get rid of stereotypical pictures. These would include the frumpy librarian and the African-American man in a mug shot pose while holding a license plate.
3. Make photos more consistent. Sometimes photos look very different, and the user is unable to recognize them as the same person. The photos should be clear and show the person's face.
4. Resource category list should be in the form of a checklist.
5. Resource listing should be on one page. The user should be able to scroll up and down the screen of the resource list, instead of having to see two at a time and wait for the screen to reload each time.
6. The roles of "Max the Messenger" and "Benny the Biographer" are not clear. Both collect information about the user. This should be addressed to add consistency and eliminate confusion. One should collect all the information – and collect it only once. It may be helpful to have a place where information can be updated or changed if a person makes a mistake while entering information, or has an address change.
7. Explain how services can be added to the user's personal file for future reference. It was not clear in the system how to do this, or that it was possible.
8. A person making an inquiry or sending information through the system should have some response immediately. The response would let the user know what time frame in which to expect a response. The system should provide an option to flag urgent requests.

9. Clarify the intent of the web site and what sources of information are included. Some participants did not immediately understand the purpose of the site, and may not have used it based on this lack of understanding.

Confidentiality Concerns in Galileo

Confidentiality is not well addressed by the current system. Participants were not clear about who is collecting personal information and who will have access to it. They also did not believe the system was secure.

1. Explain the confidentiality of system (i.e. passwords are known only to the person, if they lose it no one can retrieve their information, the system administrator has no way of getting information, only people with access are those that the user gives access by sending the information).
2. Eliminate the legal/illegal immigrant questions. This question scares immigrants and implies that a person would be reported to authorities if they answer "illegal."

The comments made by participants of the focus groups were compiled and North Light made the following adjustments in the software to improve the Galileo system:
- Combining enrollment fields in Benny's Personal Profile
- Changing several unclear photos and the names of two characters
- Changing and clarifying the wording on the front page, social security entry page, citizenship status page, sections referring to confidentiality, resource search library pages, etc.
- A link to the Resource Library was created on page two so users can access resource data quickly and without signing in
- Changed taxonomy titles to Program titles in the Resource Library and Agency Annex

North Light, Inc. has diligently worked with the Hub staff in identifying and addressing any parts of this extremely complex data system that did not function properly. Some of the suggested changes have been placed on hold, since there were disparate opinions by the two focus groups on issues such as: use of the characters to guide a user through the site, having a word search function in addition to the keyword and topical search functions already in the Galileo system, greater use of a scrolling feature vs. the use of a push button that moves a user from screen to screen, etc. Consensus was to get the system functioning smoothly and try out the current Galileo system features for a period of six months, then re-evaluate before spending more resources on major design changes.

Phase 2 - (Citizen Version)

In late August, as the project was implemented, the first public access sites came (and continue to go) on-line. Staff manning those sites ask citizen volunteers to try out all the features of the system and then to complete an evaluation form. Each of the twenty sites will ultimately test

the Citizen version with at least five citizens, a total of 100 or more individuals. Survey questions cover: ease of use, appearance, navigation of the website, difficulty in located needed service data, and sending/receiving e-mail and enrollments.

The comments made by participants of the Galileo system are compiled on a monthly or bi-monthly basis by United Way of East Central Iowa. The initial surveys mostly identified the frustrations of Pilot Site staff and volunteers in trying to test the Galileo system before it was fully implemented and somewhat debugged. A hard "lesson learned" was that trying to force an unrealistic timeline results in frustration and apathy. The testing by Pilot Sites was put on hold for two months, while a series of issues with keeping the file server running smoothly were addressed. The server became stable in late November, and Pilot Site testing has been re-initialized.

Although the number is not as high as hoped, 31 citizens did try Galileo and responded to a questionnaire on the usefulness and ease in which the system could be navigated. It is important to note again that during this evaluation phase, the system was having a number of problems that slowed it down and was still in the process of being debugged by the vendor. A more comprehensive evaluation should and will occur.

Some general findings from the citizen volunteers include:
- 58.1% of respondents required assistance in navigating Galileo and The Resource House
- 83.9% of respondents found Galileo and the Resource House somewhat or very helpful as a tool for finding information about programs.
- 54.8% of respondents said they would use Galileo and The Resource House again in the future. Of those respondents who indicated that they would not use the system again, the following reasons were given:
  - takes too long and I need help doing it
  - too cumbersome, too many locations to find simple things
  - too slow and the links are not in a dominant color, the headings are dominant and you try to click on them instead
  - Directory in Disk is much simpler
  - Too slow, it would be quicker with my referral book

Demographics of the citizen volunteers who responded to the questionnaire include:
- 92.6% work outside the home
- 75% of those who work are part time employees
- respondents' age range is as follows: 89.9% were 18-55, 7.4% were 55 and over, 3.7% were under 18
- there was a wide range of computer experience among the respondents, from 18.5% who were experienced computer users to 7.4% who had no computer experience

Agency Annex

The agency annex is the component of Galileo that allows providers to access and update the information provided about their own agency and programs. Beginning in December 1998, and semi-annually thereafter, providers will be asked about their satisfaction with this method of updating their information.

This compiled information will be included in annual evaluation reports. The results of the evaluations of the citizen and professional versions will be valuable and will inform the expansion plans for Galileo to other areas of the state.

In addition to the citizen volunteers, providers and staff were surveyed on their perspectives on Galileo and The Resource House, and the Agency Annex, which allows a provider to view and change information specific to their agency and programs. Again, due to system problems, the number of responses to date is low. Eighteen professionals reviewed the site and responded to the survey. Some very preliminary findings include:

- 60% of respondents indicated that the Galileo system saves staff time by directly providing consumers with more resources
- 100% of respondents indicated that Galileo helps staff in making referrals to address consumer needs
- 100% of respondents indicated that the ability to receive enrollments makes doing intake easier

Phase 3

In December, project leads and staff circulated a brief survey to all key stakeholders in the Galileo project, soliciting their input on the organization and implementation of the project. Comments returned can be found in this report under *Lessons Learned.*

Phase 4 - (Professional Version)

Throughout the spring of 1999, the Professional Version will be implemented and "beta tested" by caseworkers at Linn County DHS, including family support workers, United Way staff, and HACAP staff. Those caseworkers and other professionals (a minimum of 8 to 10) will periodically rate their level of satisfaction with using the Professional Version of Galileo.

As a standard, they will consider the use of Galileo over the former methods for referring clients, such as the use of Information and Referral directories on disk, calling an I & R, or simply relying on what the individual workers knows about resources in the community. In addition, professionals will be asked questions around the ease of navigating the system, locating needed information, and the amount of information provided for each service or provider, as well as their impressions on the comprehensiveness and inclusiveness of Galileo.

What methods will be used to reduce or eliminate stumbling blocks for citizen use?

Volunteer citizens were questioned about their degree of comfort that information they enter into Galileo will remain confidential, and the level of importance that they place on the anonymity that this system provides. They were asked about the convenience of the locations of the public access sites (and recommendations for additional sites) and whether or not they would recommend this system to others they know who may be seeking services. They were also asked about their level of satisfaction with the ability to send messages (and receive responses from) to specific providers. In fact the Galileo system offers a short exit interview, opportunity to list things the consumer could not find, and opportunity to send either specific programs or the Hub comments on the system, anonymously via "Galileo mail."

Has this project increased customer satisfaction?
Since this system did not exist before, this will take some time to assess. However, citizens can be asked about their preference in using Galileo versus a number of other ways to access or gain information about services; and to rate the use of Galileo against those other methods, based on their experiences.

Has use increased since this system was implemented?
The number of hits on Galileo will be tabulated by the system itself. In addition, providers listed in Galileo can access the number of hits to their organization's information, which will give them an idea of the value of being listed in the system to their organization. Due to the hardware instability issues there has not yet been sufficient time to generate these usage statistics. The system tools are all functional, and in 1999 there will be reports on system usage and trends.

What impact has this had on government agencies? Users?
We will assess the impact that the on-line registration for services and programs has on caseloads and convenience for Iowa Workforce Development and other organizations. This will inform other agencies considering linking with Galileo. The ability to access the number of hits on specific agencies and services will also provide government (and other) agencies information as to the interest in their service, or the way that the information is displayed.

Professionals will be asked questions around the convenience of using Galileo and whether or not this system has increased their access to information. Questions might include: do they feel like they're getting more information, is it easier to access services, are they finding services to help clients more readily, does it save time over the old paper process.

Lessons Learned
Staff and leads circulated a brief questionnaire to all key stakeholders with a role in the planning and implementation of Galileo, including the local team in Cedar Rapids, the vendor, North Light, and the project leads and team members. It is apparent from the responses received that there were varying perspectives on the process from each group, so each group's

comments are listed separately below.

Submitted by the Vendor, North Light
The most challenging aspects of the project from our point of view was the unrealistic time frame mandated by the federal money disbursement. This resulted for North light in overtime and long hours of work, something we would not want to do again in the same way. On the other hand, we had the satisfaction of getting the project completed in record time. We think everyone on the team did a fabulous job!

Submitted by Team Leads and Members
1. Project 13 -- *What are your thoughts and opinions on your involvement as a member of the team or as a vendor/contractor? (The process by which information was shared, the meeting schedule, was your involvement valuable, etc.)*
    - As a member of the team and business lead, I felt that I was able to make a contribution to the project. The concept of having two leads, one business and one technical was a valuable one to the process. The concept could have more effective if the leads had been able to dedicate more of their time to the process rather than trying to fit it into their regular jobs. Without the support of SPPG the leads would not have been as effective. Partnering with SPPG was a great asset.

    - The technical lead set up a site on the web for the Project 13 where the final report could be worked on by several members. It would have been valuable to have made that site available from the beginning where all meeting notes and other important information could have been posted for the team members.

    - As a representative of the Federal Government, I believe the involvement of all levels of government and the public and private sectors was beneficial from the beginning of the project. I served on one of the design groups that identified issues in the human services arena that could or should be impacted by technology. Project 13 grew out of that group's thinking. The input from the broad representation on the group was critical to developing a working consensus about both the issues that needed to be addressed and, through the projects, workable ways to address them. An example was, and is, the issue of confidentiality and shared data. Project 13 has taken a step in working through that issue to improve access to the public.

2. IOWAccess -- *What are your thoughts and opinions on your involvement/understanding of the structure of the entire IOWAccess initiative? (How did communication occur between Project 13 and IOWAccess, were expectations clear, is this a good way to manage this very large initiative, etc.)*
    - The professional relationship with IOWAccess was helpful, however the relationship

IOWAccess

and the direction from the Advisory Council was not clear. It appeared that some members of the Council wanted to play a role that was more managing than advisory. The relationship with the Citizen's Council was less clear than that of the Advisory Council. If the roles of those bodies was to be more management in nature than there probably needed to be more direct contact and communication between those bodies and the councils. Perhaps these bodies were not clear how their roles were defined.

- The communication seemed to be clear among the various design groups through the overall steering committee. Being less involved during the implementation of the actual project, I was less clear about the connection among the groups during that phase. The sequencing of projects steps got somewhat complicated, particularly between Project 1 and some of the other projects – mainly because the shape some of the projects needed to take was going to be impacted by some of the decisions reached by the group planning Project 1. They, in turn, were hampered to some extent by the size and tight timeframe for major decisions about infrastructure. Given those restraints, I thought the whole project moved amazingly well for the size of the undertaking and the time allotted to finish the project. Some of the credit for that has to go to State Public Policy Group and the very effective way the staff managed the project.

3. *What would you have done differently as a member of the Project 13 team?*
   - I would have worked harder to clarify the relationships between the project, ITS, IOWAccess, Iowa Interactive, ICN, IWD and the two advisory councils. Which entity had control or authority was unclear during much of the process. The project team was unclear as to who, if anyone, they were to accept leadership and governance from.

   - I personally would have liked to be able to participate more directly in the latter phases of implementation. Travel limitations made that impractical.

4. *What would you have done differently as a member of the IOWAccess initiative?*
   - Being redundant, I would have worked hard to define the roles of the various players. Had I been a full time project manager I would have done that. . . maybe. The lack of those defined roles wasn't necessarily an observable phenomenon at the time I joined the project, but became apparent as time passed.

   - Again, more participation would have been helpful to me, but that is not the fault of the project.

5. *Do you believe that Project 13 (Galileo) will provide a useful tool that allows citizens ready*

access to their government (the overall IOWAccess mission)? Please explain.

- Yes, I believe it will provide ready access to government services and community services. This will empower people to be able to help themselves by having access to services they need. It will give them choices they have not had in the past.

- I believe it will, based on what I have seen demonstrated. The real test will be in the community and how both consumers and providers use it.

6. *Please state any final thoughts, positive or negative, about the process.*

- The experience I had was probably one of the most enriching, fulfilling experiences I've had in my professional life. Project 13 team was comprised of members from government, private non-profit, and business (vendor). We all brought value to the team and the project from our separate professional cultures and experiences. It is a model I could support.

- From my perspective, this provides a model of what other communities in the four States in Federal Region VII can do to improve access to services. Some tools to help provide that information would be useful: brochures or some other descriptions of the project, e.g., how it was implemented, issues and how they were addressed, and how it is supported.

Submitted by the Cedar Rapids Pilot Site

1. *Project 13 -- What are your thoughts and opinions on your involvement as a member of the team or as a vendor/contractor? Keep in mind the various phases of the project (from the initial design of the community application and vendor RFP - through planning and implementation, testing, problem resolution), as well as the process by which information was shared, the meeting schedule, was your involvement valuable, etc.*

- The project timeline was too short at each phase in the project. Implementing Galileo - The Resource House was a monumental task involving many people at both the State and local levels, as well as, manipulating approximately two hundred thousand data elements between two fundamentally different databases.

- The timeline was pushed, which sometimes resulted in addressing parts of the project before we were really ready, e.g. we trained and launched the Pilot Sites to test the system before the server was functioning consistently, resulting in negative feedback and frustration on everyone's part. We might have adjusted the timeline and waited to start the Pilot Site testing after the server and hub software were running better.

- Because the timeline was tight, communication about ICN meetings and events was often confusing and late - arriving the day before or day of a meeting resulting in

reduced levels of participation and increased frustration. Perhaps setting up a series of meetings at the beginning of the project and then canceling if need be, but not changing dates and times, would have better met the work schedules of more Team members.

- Although I felt a valued member of the Team at the local level, it took some time to build a rapport with State Project 13 representatives. Perhaps a "team-building" exercise early in the project would have helped.

2. *IOWAccess -- What are your thoughts and opinions on your involvement/understanding of the structure of the entire IOWAccess initiative? (How did communication occur between Project 13 and IOWAccess, were expectations clear, is this a good way to manage this very large initiative, etc.)*
   - The best way to understand the entire IOWAccess structure was to review the IOWAccess website. An orientation to the other projects early in the project would have been helpful.

   - We had some major differences in understanding about the purpose and features of the project, but didn't realize that until too late. The Project might have started out with a quick sheet of the expectations and results that every level, from Citizen's Council to Local Implementation Team, read and signed-off on. Expectations of the Citizen Council seemed to vary from the goals and outcomes listed in the original request for proposal.

   - At the Local level, we needed a better understanding of the role and function of the Citizen Council in this project.

   - ICN sessions were an excellent way for us to participate without the added time of travel to/from Des Moines.

   - E-mail and fax were good communication tools, although at one point we had to upgrade our software to read what the State sent out. The non-profit sector tends to run behind others in technology.

3. *What would you have done differently as a member of the Project 13 team?*
   - Talked more realistically up front about the timelines needed to implement such a unique and complex system, and planned periodic times to have a "reality check" on the implementation timeline.

   - Developed a memorandum of understanding about the project goals/outcomes that all levels of governance and implementation agreed to, but also have a willingness

to modify, if necessary and agreed upon by all.

- Delayed the testing and feedback by citizen users and focus groups until the file server and new software were functioning correctly and consistently. We spent a lot of time back-tracking to deal with damaged relationships because we pushed ahead to achieve unrealistic timelines in testing when the server and software were not stable, so a lot of features did not work consistently.

- Added two full-time staff to address Galileo at the Hub level, rather than trying to work with an ever-changing pool of temporary staff from office placement services. We spent a lot of time interviewing, and training temporary staff, who never gained an adequate understanding of a complex system. It would be better to work with staff trained to do data maintenance for Information & Referral databases.

- Placed the upgraded computers in the Hub site immediately, at the start of the project. Much time was spent waiting for older, borrowed pc's to struggle to manage the new Galileo software.

4. *What would you have done differently as a member of the IOWAccess initiative?*
   - Held more communication opportunities for inter-relationship of the various projects, as several overlapped to a degree.

   - Produced quick sheets to briefly describe all the projects, their purpose and outcomes, then sent that sheet to all planning, oversight and implementation teams.

   - Advocated for longer timelines to design and implement some of the more complex pilots.

5. *Do you believe that Project 13 (Galileo) will provide a useful tool that allows citizens ready access to their government (the overall IOWAccess mission)? Please explain.*
   - Yes, and even provide access to a whole host of community services (the mission of Project 13).

   - Government will need to assist the Galileo system by providing service information in the format that fits the system design and works for a user to seek and find referral data. Government (and other) services will be able to go on-line to modify, add, delete service listings at any time which will almost immediately update the internet database - keeping it relevant and current. The Hub sites perform a screening and editing function for security and consistency of the overall database, which may make changes take a day or two to appear, which is many time better

than the annual or semi-annual updating of most I&R systems now.

- Ultimately services can be accessed from anywhere in the State and eventually, the Nation, by anyone with an internet browser capable personal computer or TV.

- The Galileo system will allow the citizen to do more than look up and print out services, he/she can also communicate with many programs via e-mail, and can even submit an initial enrollment form.

- Government services and other programs can provide access to the Galileo system for their consumers, enabling them to solve some of their own information needs, come to "first" appointments better prepared, and receive at least a partial enrollment form before that initial appointment. This should save processing time in handing consumer cases. Galileo will have a Professional version designed as e quick research tool for professional caseworkers, after the first of the year.

- The Galileo enrollment system has great potential to eliminate the need for a commonly agreed on set of application fields. Galileo can have an almost unlimited number of data elements. The software allows the Hubs to select and format the enrollment fields per the individual request of each service provider. The enrollment form can be e-mailed, faxed or even sent by data file transfer (ASCII) directly into the Management Information System of the receiving organization.

6. *Please state any final thoughts, positive or negative, about the process.*
    - The Galileo system will need another year of beta testing to find and work out any bugs. Like all good Information & Referral systems, it will need to continue to evolve as technology and consumer interests change.

    - There is a need for on-going capacity funding as this system is launched.

Section IV ▪ *Future Plans – Conclusions & Recommendations*

Sustainability

Project 13 recommends that Project 13 (Galileo) be sustained. Galileo provides immediate responses to Iowa's citizen inquiries regarding community resources via the Internet. It represents the only single source of comprehensive, current community resource information. Galileo provides human resource needs data that will be valuable to both governments and private entities for planning purposes.

Galileo demonstrates significant potential for acting as a pathway to governmental information and the ability for citizens to apply for services without having to go the source office. Currently citizens can access, in a seamless way, Iowa Workforce Development (IWD) services through Galileo. This same access can be developed for other governmental entities.

Iowa Workforce Development will take primary responsibility for the sustainability of Galileo. Secondary responsibility for sustainability has not been declared by another entity. The IWD has allocated $178,000, from reversion funds to sustain Galileo in fiscal year 1999. The Project 13 team has requested IWD put a place-holder for $436,000 in its FY2000 budget to fund expansion into additional IWD Service Delivery Areas not completed in FY1999.

It is anticipated that governmental entities wanting to enjoy a seamless relationship with Galileo will support that relationship with dollars.

The team recommends that funding and resources be obtained from State Departments, sales of value-added products, e.g. Counselor Version of Galileo, and grants. A feasibility study was completed to determine the cost of expanding Galileo statewide. The data is necessary to plan for developing funds and for local communities to make decisions around participation in Galileo.

Expansion

The Project 13 Team recommends that Galileo be expanded to cover the entire state. This expansion will provide equal availability to every citizen regardless of location, urban or rural. Expansion will also enable families of senior citizens living outside Iowa to access the Internet and locate and apply for needed services for aging or ill parents living in Iowa.

Expansion of Galileo is possible because the license for the software is owned by Iowa and Iowa has the right to use the software anywhere and in any way it pleases within Iowa. The software can be made available to any entity that wants to be responsible for expanding

Galileo. Single entities or partnerships of entities, private and public, can fund and manage a Galileo hub.

The rate of expansion will be driven by the amount of interest and available money. The current plan is to expand to the remainder of the Service Delivery Area where the project county is located during this fiscal year. The project team wants to expand Galileo to every county in Iowa, however no timetable for doing that has been developed.

The cost of expansion for each additional Service Delivery Area is currently estimated at $124,000. Those costs can be shared by private and public sources. Hardware costs will be less of a factor for those areas where participating organizations have hardware already available.

Project 13 team members recommend that Galileo be used nationwide. Nationwide use of Galileo will provide an information and referral resource that will be usable to citizens no matter where they travel or move in the United States. Nationwide data on human services needs will be easier to develop and access if Galileo is used throughout the country. Galileo is capable of providing information in eight separate languages which helps meet the needs of a continuing, more diverse American population.

Project 13 team members recommend that Internet based training be explored by the Iowa Workforce Development and other partnering departments as a means of providing cost effective training for professionals and staff who will be using Galileo or assisting citizens use public access sites.

Maintenance

Sponsoring organizations will be responsible for providing directly or contracting for the maintenance of Galileo and the resource data it gathers and provides.

IWD has committed to maintain the statewide file server by providing backup and recovery, periodic database maintenance, such as re-indexing, system software maintenance, security monitoring, hardware maintenance, and Internet connectivity.

Galileo can be updated instantaneously and continuously and it is hoped that providers will understand the value of having updated information about themselves on Galileo. Local sponsoring organizations will establish schedules and protocols for updating the resource information to ensure the credibility of the system.

North Light, the contractor that created Galileo, has committed to passing on improvements and enhancements free to Iowa that are developed in other states as part of other states' efforts to provide Internet access to information and referral resources. IWD will have responsibility for developing and passing on other enhancements developed by other entities

that have relationships with Galileo. Essentially enhancements will be the responsibility of the requesting entity.

Intergovernmental and Citizen Focus

Project 13 team members recommend that local sponsoring organizations establish advisory boards or councils comprised of a diverse group of people, including ordinary citizens, to provide feedback on usage and usability.

Public Awareness

Iowa Interactive has committed to provide consultative marketing services to each IOWAccess project and to market IOWAccess projects in a general manner. Project 13 has established a marketing subcommittee that will develop strategies creating public awareness.

Feasibility Study

Purpose of the Report

1. To estimate the cost of expanding Galileo to all 7 counties in Service Delivery Area (SDA) 10 and maintaining it through 6/30/01.

2. To estimate the cost of expanding Galileo to each of the other IWD Service Delivery Areas.

3. To identify future revenue sources from Galileo to offset costs.

4. To identify issues around providing foreign language versions of Galileo to the public.

5. To highlight the expansion of Galileo through connection with IT systems in state agencies other than Iowa Workforce Development.

The Report is Organized as Follows:

> **Section I** – Overall assumptions and considerations to be aware of in reviewing the estimates and information in the report
>
> **Section II** – Cost to expand and sustain Galileo in SDA 10. Includes the assumptions and considerations used in preparing estimated costs
>
> **Section III** – Cost to expand Galileo statewide through IWD Service Delivery Areas
>
> **Section IV** – Potential revenue sources for Galileo
>
> **Section V** – Foreign language versions of Galileo
>
> **Section VI** – Connecting Galileo to other state agency IT systems

Section I - Overall Assumptions and Considerations

1. There are 16 Information and Referral (I&R) agencies currently identified and operating across Iowa and Wisconsin. (Obtained from a list compiled by the Des Moines I&R - First Call for Help.) They are located in Ames, Burlington, Cedar Rapids, Clinton, Council Bluffs, Davenport, Des Moines, Dubuque, Iowa City, Mason City, Muscatine, Sioux City, Spencer, and La Crosse, Wisconsin (which covers part of Iowa). They provide services to their home county, and often, but not always, to surrounding counties. They may be a comprehensive I&R, or they may concentrate on services for a specialized population (like the aging). A list of the agencies and the counties they serve can be found in Appendix A.

2. There are 21 counties who are not serviced by an I&R agency. Before a provider database can be built that includes these counties, the providers must be identified/located and their service information collected. This will required additional effort by the Hub. These counties are: Chickasaw, Bremer, Black Hawk, Buchanan, Delaware, Hamilton, Hardin, Grundy, Tama, Poweshiek, Jasper, Louisa, Henry, Lee, Harrison, Shelby, Cass, Mills, Montgomery, Fremont and Page. The Des Moines I&R, First Call For Help, has plans to expand their service area to include Adair, Adams, Union, Clarke, Taylor, Ringgold, and Decatur counties.

3. A questionnaire was sent to the sixteen I&R agencies. Responses were received from Ames, Cedar Rapids, Clinton, Council Bluffs, Davenport, Des Moines, Dubuque, Iowa City (Iowa Compass), Mason City (Mercy Family Health Line), Mason city (Elderbridge Agency on Aging), Muscatine, Spencer, and La Crosse, Wisconsin. Much of the information upon which cost projections in this report have been made is based on the information received in response to the questionnaire.

4. All of the I&R agencies who responded indicated that they need more information to decide if they will participate in the Galileo system. For purposes of the calculations in this report, the assumption was made that given more information, they would agree to participate.

5. The database of providers in the Cedar Rapids area pilot was computerized using IRIS software. A software program was written as part of the pilot to convert IRIS based data to Galileo, eliminating the re-keying of this data. As Galileo is expanded into other regions of the state, this conversion software will also be used with other Information and Referral (I&R) agencies in Iowa who are using IRIS, reducing the amount of keying of data into Galileo during conversion. The I&R agencies using IRIS include Des Moines, Council Bluffs, Davenport, Iowa City (Compass-a statewide database), Dubuque, Ames, Clinton, and Muscatine.

6. If an I&R agency is using a software package other than IRIS for its provider data base, a software program converting that data to Galileo will need to be written, for an estimated cost of $3000 each.

7. The areas covered by an I&R agency may not, and usually do not, correspond to the area included in an IWD SDA. Therefore, conversion to Galileo within an SDA may involve working with more than one existing I&R agency; records that may or may not be already computerized, or if so, not on IRIS; or creating provider information from scratch for counties not served by an I&R.

8. The amount of data required by Galileo is greater than the information now gathered by the existing I&Rs. This will mean additional costs for the collection and keying of that data, even when data is already stored on IRIS or some other software.

9. The cost of the hardware/software for the Hub site for the pilot was $1948. This will be the amount used in the calculations in this report.

10. Based on the experience gained from the pilot, it is projected that, on average, each provider agency will provide three programs and operate at two sites.

11. The minimum hardware configuration required for a public access site is $800. This number will be used to calculate the cost of new public access sites as Galileo is expanded.

12. For use in calculating the cost of expansion, the number of public access sites assigned to a county is based on the following population ranges:

0 – 25,000	3 sites
25,000 – 50,000	5 sites
50,000 – 75,000	7 sites
75,000 – 100,000	10 sites
100,000 – 150,000	12 sites
200,000 -	20 sites

See Appendix A for a list of estimated public access sites in each county.

13. The number of providers assigned to a county for which that information is not available is based on the following:
   - counties with populations up to 10,000 were assigned a minimum of 8 providers
   - counties with populations of 10,000 to 20,000 were assigned a minimum of 15 providers
   - if a county had one or more town of 5,000 or more population, additional providers were assigned

- a comparison of counties with known number of providers was also made

See Appendix A for the estimated and known providers in each county.

14. Following are the time estimates (based on the experience of the pilot) for accomplishing tasks required to establish the Galileo database:
    - Enter one new agency listing: .25 hours
    - Enter one new program listing: .5 hours
    - Enter one new site listing: .25 hours
    - Edit/update one existing agency/program/site listing: .15 hours
    - Convert one agency/program/site listing to 5th grade: .15 hours
    - Assign taxonomy codes to one program   .25 hours
    - Assign key words to one program   .25 hours
    - Quality control check one agency/program/site listing: .1 hours
    - Mail/call update requests for one agency (2-5 programs):   .75 hours

15. In calculating the estimated costs for expansion into the SDAs other than SDA 10, it is assumed that the training for Hub site personnel and users of the system will be accomplished through a web based application developed for the expansion of SDA 10. Please see Section II, D. and also Appendix B.

16. The personnel cost for establishing and maintaining the Galileo database will be $12 per hour.

Section II - Cost to Expand and Sustain Galileo in SDA 10

Assumptions and Considerations:

1. When the Galileo pilot is fully operational, all providers in SDA 10, not those located in Johnson County, will be included in the Galileo database. This is because the United Way in Cedar Rapids does not include Johnson County in its service area, so it was not part of the pilot conversion.

2. There are 335 agencies in Johnson County that need to be added to Galileo, based on the number of agencies included in the directory published by the Johnson County Council of Governments. These agencies are not currently on any computer system.

3. The expansion of Galileo to include all SDA 10 counties will be done by 6/30/00.

4. The addition of Johnson County providers will be done by part-time workers earning $12 per hour and will be completed by 6/30/00.

5. Once the expansion has been completed, the system will be maintained by a data manager.

6. An additional 15 public access sites are proposed for a Phase 2 expansion of Galileo in SDA counties other than Linn.

7. The cost to expand and sustain Galileo in SDA 10 through 6/30/00 will include:

   a) The cost of maintaining the current database
   b) The cost of adding Johnson County providers to the database
   c) The cost of the hardware and software for additional public access sites within the SDA10
   d) The cost of training providers

A. The Cost of Maintaining the Current Database: The maintenance of the database will be the responsibility of the area "HUB." This will be the United Way of Cedar Rapids for SDA 10. The projected costs are:

10/1/98 to 6/30/99:	$39,115
7/1/99 to 6/30/00:	$49,475
7/1/00 to 6/30/01:	$31,475

Please refer to Appendix B for budget breakdowns.

B. The Cost of Adding Johnson County Providers to the Database: According to the directory published by the Johnson County Council of Governments, there are 335 providers in Johnson County. From this, it is projected that there will be data on 1005 programs provided at 670 sites that must be included in Galileo, for a total of 2010 records. Because this information is not automated, all records must be created by hand keying. This will take an estimated 1758.75 hours. In addition, it will take an estimated 251.25 hours to collect the data from the providers that must be entered, for a total of 1926 hours. At $12 per hour, this comes to a cost of $24,120. It is anticipated that this activity would not begin until July 1, 1999 and completed by June 30, 2000.

Please refer to Appendix B for the calculations used to arrive at this cost.

C. Hardware and Software Costs of Additional Public Access Sites: It is proposed that 15 additional sites be established for those counties in SDA 10 other than Johnson County. At an average of $800 per site, this totals $12,000. In addition, it is projected that Johnson County will have 10 public access sites at an average cost of $800 per site, for a cost of $8,000. The total cost of additional public access sites in SDA 10 would be $20,000.

D. Cost of Training Providers. The issues of training providers to enter their information and keep it updated; how to help citizens and other end-users use the system; Hub personnel to maintain the system; and other users of the system will be a massive undertaking as the system is expanded to the other SDA regions across the state. It was first thought that a paper-based training notebook would meet the needs of SDA 10 as expansion of Galileo occurred. However, the development of a web-based tool may be more efficient and cost effective, both in SDA 10 and in the other SDAs as they are included. A proposal for development of such a tool by Crossroads Solutions (the development of the web applications for Galileo) for $30,000 can be found in Appendix B. This has been included in calculating the cost of expanding to SDA 10. It will be a one-time cost that will then meet the training needs of expansion to the other SDAs in a very cost-effective way.

Combining the information from A, B, C and D above, the total projected costs to expand and sustain Galileo on SDA 10 through June 30, 2000 is:

	10/1/98 to 6/30/99	7/1/99 to 6/30/00	7/1/00 to 6/30/01
Maintaining Data Base	$39,115	$49,475	$31,475
Adding Johnson County Providers		24,120	
Web based training tool development		30,000	
Hardware/Software, not Johnson County	12,000		
Hardware/Software, Johnson County	____	8,000	___
Total	$51,115	$ 111,595	$31,475

Section III - Estimated Cost to Expand Galileo to 13 other SDAs

1. In calculating the costs, the number of public access sites and providers (if not known) were estimated using the process described in the Overall Assumptions and Considerations, Section I. Estimated providers will be identified as such.

2. The time estimates identified in Section I for establishing the Galileo database will be used in all calculations in this section.

3. Estimated hardware/software costs per public access site ($800) as identified in Section I will be used in all calculations in this section.

4. The counselor stand-alone version of Galileo will be available in two types: a 16-bit version that will not allow downloading of provider information updates, and a 32-bit version that will. It has been assumed in the calculations that each Hub would have the 32-bit version, at an additional cost of $1500 paid to the developer, North Light.

5. The following expansion calculations for each SDA are for one-time costs and do not include the costs of ongoing maintenance of the system. At the writing of this report, Galileo has not been not fully operational in the pilot site long enough to build a history for estimating the personnel and other requirements in each SDA for ongoing maintenance of the system. It has been estimated, however, in Section II of this report that an additional professional staff person will be required in SDA 10 (the pilot site) to perform the tasks required for updating and maintaining Galileo that are not required for existing I&R systems. These include the additional data captured by Galileo, 5th grade conversion, and reports and evaluations.

The calculations for each SDA are included in Appendix C.

SDA 1
Assumptions and Considerations:

1. Counties include: Howard, Winneshiek, Allamakee, Clayton, Fayette, Chickasaw, Delaware and Dubuque
2. All counties but Chickasaw, Fayette and Dubuque are served by the La Cross, Wisc. I&R which uses I&R/First Call Net software. Dubuque is in the process of converting to IRIS.
3. Chickasaw and Delaware counties are not served by an I&R.
4. Number of providers used in the calculations are known for all counties but Chickasaw and Delaware, which are estimated.

Estimated cost of expanding Galileo to SDA 1: $81,563

SDA 2
Assumptions and Considerations:

1. Counties include: Winnebego, Worth, Mitchell, Hancock, Cerro Gordo, Floyd, Franklin.
2. All counties are served by the Elderbridge Area on Aging. This I&R is not automated.
3. Winnebago, Worth, Mitchell, Hancock and Cerro Gordo are also served by the Mercy Family Health Line. This I&R is automated, and uses Access Health software.
4. Floyd and Franklin counties are not included on an automated database, so their data must be collected from scratch.
5. The number of providers in none of the counties is known, so estimated numbers are used in all calculations.
6. Mercy Family Health Line is assumed to be the area Hub.

Estimated cost of expanding Galileo to SDA 2: $31,967

SDA 3
Assumptions and Considerations:

1. Counties include: Dickinson, Emmet, Kossuth, Clay, Palo Alto.
2. Dickinson, Emmet, Clay and Palo Alto are served by the Spencer I&R, Northwest Aging Association. Its database is automated, using dBase software.
3. Kossuth county is served by Mason City's Mercy Family Health Line. Its database is automated, using Access Health software.
4. The number of providers is not know in any of the counties, so estimated numbers are used in all calculations.
5. The Northwest Aging Association is assumed to be the area Hub.

Estimated cost of expanding Galileo to SDA 3: $21,423

SDA 4
Assumptions and Considerations:

1. Counties include: Lyon, Osceola, Sioux, O'Brien.
2. All counties are served by the Spencer I&R, Northwest Aging Association. It's database is automated, using dBase.
3. The number of providers is not know in any of the counties, so estimated numbers are used in all calculations.
4. The Northwest Aging Association is assumed to be the Hub.

Estimated cost of expanding Galileo to SDA 4: $19,675

<u>SDA 5</u>
Assumptions and Considerations:

1. Counties include: Buena Vista, Pocahantas, Humboldt, Wright, Sac, Calhoun, Webster, Hamilton, Greene.
2. Buena Vista is served by Spencer's I&R, the Northwest Aging Association. All other counties are served by the Elderbridge Agency on Aging in Mason City.
3. Spencer's database is automated using dBase. Elderbridge's database is not automated.
4. The number of providers is not known in any of the counties, so estimated numbers are used in all calculations.
5. No Hub site is proposed as neither agency is located within the SDA area. An option for the Hub would be the IWD Workforce Development Center.

Estimated cost of expanding Galileo to SDA 5: $36,443

<u>SDA 6</u>
Assumptions and Considerations:

1. Counties include: Hardin, Marshall, Tama, Poweshiek.
2. None of these counties are served by and I&R agency.
3. The number of providers in not known in any of the counties, so estimated numbers are used in all calculations.
4. No Hub site is proposed as no I&R agency is located within the SDA area.

Estimated cost of expanding Galileo to SDA 6 is: $34,512

<u>SDA 7</u>
Assumptions and Considerations:

1. Counties include: Butler, Bremer, Grundy, Black Hawk, Buchanan.
2. None of the counties are served by an I&R.
3. The number of providers is not known in any of the counties, so estimated numbers are used in all the calculations.
4. No Hub site is proposed as no I&R is located within the SDA area.

Estimated cost of expanding Galileo to SDA 7 is: $66,048

<u>SDA 8</u>
Assumptions and Considerations:

1. Counties include: Jackson, Clinton, Scott, Muscatine.

2. Jackson and Clinton are served by the Clinton I&R. Scott is served by the Davenport I&R. Both agencies have automated their data using IRIS. Muscatine is served by the Muscatine I&R. As they did not respond to our questionnaire, it is not known if their records are automated. For purposes of this report, it will be assumed that they are not.
3. The number of providers is known for all counties except Muscatine. An estimate will be used for Muscatine in all calculations.
4. No Hub site is proposed because of the numerous I&R agencies located within this area.

Estimated cost of expanding Galileo to SDA 9: $84,202

SDA 9
Assumptions and Considerations:

1. Counties include: Carroll, Audubon, Guthrie, Boone, Story, Dallas, Polk, Jasper, Madison, Warren, Marion.
2. Boone, Dallas, Madison, Polk, Warren, and Marion are served by the Des Moines I&R agency. Their system is automated using IRIS software. Story is served by Ames. They are also automated using IRIS.
3. Carroll, Audubon, Guthrie, and Jasper counties are not served by an I&R. The number of providers is not known for these counties. Estimates will be used for all calculations.
4. No Hub site is proposed because of the possibility of either Ames or Des Moines serving in this fashion.

Estimated cost of expanding Galileo to SDA 11: $221,360

SDA 10
Assumptions and Considerations:

1. Counties include: Plymouth, Cherokee, Woodbury, Ida, Monona, Crawford.
2. All but Crawford county are served by the Sioux City I&R. Crawford is not served by an I&R.
3. Sioux City did not respond to the questionnaire, so it is not known if their database is automated. For purposes of this report, it will be assumed that they are not.
4. All provider numbers are known.
5. It will be assumed that the Sioux City I&R will be the Hub.

Estimated cost of expanding Galileo to SDA 12: $41,824

SDA 11
Assumptions and Considerations:

1. Counties include: Pottawattamie, Harrison, Shelby, Cass, Mills, Fremont, Page.

2. Pottawattamie is served by the Council Bluffs I&R. Their records are automated using IRIS software. The number of providers is known.
3. The remaining counties are not served by an I&R. The number of providers used in the calculations has been estimated.
4. It is assumed that Council Bluffs will be the Hub.

Estimated cost of expanding Galileo to SDA 13 is: $39,569

SDA 12
Assumptions and Considerations:

1. Counties include: Adair, Montgomery, Adams, Taylor, Union, Ringgold, Clarke, Decatur.
2. At the writing of this study, none of these counties is served by and I&R. However, the Des Moines I&R is intending to bring all but Montgomery into their service area.
3. The number of providers is not known for any of the counties, so estimated numbers are used in all calculations.
4. No Hub site is proposed.

Estimated cost of expanding Galileo to SDA 14 is: $28,768

SDA 13
Assumptions and Considerations:

1. Counties include: Mahaska, Keokuk, Lucas, Monroe, Wapello, Jefferson, Wayne, Appanoose, Davis, Van Buren.
2. There is no I&R that is providing services to these counties at the writing of this report, however, there is some activity in Ottumwa to get an I&R started.
3. The number of providers is not known for any of the counties, so estimated numbers are used in all calculations.
4. No Hub site is proposed.

Estimated cost of expanding Galileo to SDA 15: $34,528

SDA 14
Assumptions and Considerations:

1. Counties include: Louisa, Henry, Lee, Des Moines.
2. Des Moines county is served by the Burlington I&R. The other counties are not served by an I&R.
3. Burlington has automated their database using DYNIX/Ameritech software. The number of providers is known.

4. The number of providers is not known for the remaining counties, so estimated numbers are used in all calculations.
5. Burlington is proposed as the Hub site.

Estimated cost of expanding Galileo to SDA 16: $48,277

Section IV - Potential Revenue Sources for Galileo

Once Galileo is expanded into an SDA, it must be maintained and the maintenance of the database will be the responsibility of the Hub. It has been assumed in this report that an existing I&R will become the Hub if there is one in that SDA. However, this may or may not be the case, depending on that agency's willingness to become a partner. It can be acknowledged, however, that because Galileo is an Internet-based system, its mere existence will have an impact on existing I&Rs and the way they do business.

The revenue funding sources of I&Rs varies throughout the state. Most sell the information that they have in their databases in the form of labels, a directory on disc, a paper directory, or special lists in order to supplement, or replace dwindling funding. The amount generated through these sales varies from I&R to I&R, and is a significant source of funds to some, and not so significant to others. The potential impact that Galileo will have on these sources of income needs to be addressed in the expansion planning so that any potential negative impact on I&R funding will be kept to a minimum, and possibly turned to a positive.

One of the primary objectives in the development of Galileo was to have a way for the public (whether an organization or an individual) to have access to accurate, detailed information about the availability of services in their area. A key point is accuracy so the system has been designed to allow providers to update their own information at any time. Experience by I&R agencies, however, indicates that this may only be accomplished when the provider is prompted. The experience from the pilot indicates that the on-going maintenance and support of this system requires many labor intensive tasks done by the Hub, including background verification and issuance of participating agency passwords, assignment of keywords and taxonomy codes, clean-up of data style, and obtaining missing data elements. The Hubs will also respond to system e-mail, support local sites, conduct system evaluations, and write/edit system reports. All of this indicates additional personnel that have not been needed with the current I&R systems.

A sub-committee of the Galileo Project Team developed methods of revenue generation to help offset the costs of maintaining Galileo. Their report is included as Appendix D. The following is a summary of their suggestions.

Sale of stand-alone counselor version and updates.   This is a version of the system that operates on a computer that may or may not have Internet access. If it does not have Internet access, its database cannot be updated when providers update their information through the Internet, so data updates must be loaded onto their stand alone versions on a regular basis to keep the information current. This version of Galileo is more sophisticated condensed than that that will be available to the general public, and allows one to access information in many different ways. This version will appeal to professional counselors and private corporate human resource departments.

Sales of labels, printed directories, directory on disc, etc. Although the experience of I&R agencies varies as to the profitability of these, they would still be available through Galileo.

Charge organizations to be included in Galileo. The obvious problem with this is that it will limit the organizations that choose to be included which, in turn, may diminish the value of Galileo. An option may be to provide free listings for the first year or so, then charge a minimal annual fee that will offset some of the costs for the Hub of maintaining the database.

Corporate (or third party) sponsorship. This will be difficult to sell until the system has been operational for a track record to sell. The sponsor must also get something for their money. Possibilities might be allowing sponsors to advertise (legality of this is a question), or to list them as sponsors (as precedented by the League of Women Voter's of Iowa who maintain and update the state's legislative web page).

Sale of full system software to other entities. This could only be to entities within the state as North Light, the developer of the system, ultimately owns the rights to Galileo outside of the state. Potential for revenue from this source will be minimal.

Section V - Foreign Language Versions of Galileo

Galileo has been designed to allow up to eight foreign language versions of the system to be available to the consumer. It was the intention of the pilot to provide at least one version in the Cedar Rapids area. However, once the planning for its implementation and on-going maintenance was done, it was decided that this was outside the time and financial scope of the project. The problems, issues, and concerns that were identified are presented here to be of assistance in future expansion of the system. It is true that by not providing the system in foreign language versions, the system may not be accessible to a portion of the population that would receive real benefits.

What Languages?

The first issue to address is what language or languages will be selected. Iowa communities are becoming more diverse with people from more and more countries settling here. For example in the Cedar Rapids area, there are people from Somalia, Palestine, Iran, Iraq, Bosnia and other Eastern Europe countries, Latin America, Asia, etc. With the current unrest in the world, there is no way of knowing what the make-up of a community will be next month or next year. Depending upon the refugee country, there are also dialects that must be considered in translating the database. Are all refugees literate, both in the written word and computer literate? What should be the criteria for selecting a language? The size of the population or the availability of translators? The preceding questions are difficult to answer, but are important considerations in determining how to proceed.

Converting the Database to the Selected Language

The issues and concerns here deal with the continuing need for translation of the system. Translation would be done with the original establishment of the database in an SDA, but is also by necessity a continuing activity as the data can be updated at any time by a provider. There are software packages that will "translate" into a language, but this must then be edited to make sure the meaning of the information has not changed in the translation. This requires human intervention. As the translation occurs, it must also be corrected for fifth- grade level reading. There is a software package that will identify words that need to be changed in the English version, but there are no such packages for a foreign language version. Therefore, the translator must have the knowledge and ability to identify and accomplish this.

Availability and Cost of Translators

It is difficult to estimate the cost of translation services because it solely depends on the language, and the background and expertise of the translator. For example, the Department of Human Services Refugee Service Bureau has contracts ranging from $10 per hour to $.15 per word for translation of the same language. The low end contract is with a person who knows English and Bosnian, and the high end is with a person who had a communication business in Bosnia and is a professional at formatting translations.

The difficulty in finding translators depends on the language. A resource for location of translators of refugee languages is through the Refugee Service Bureau network.

Section VI – Connecting Galileo to Other State Agency IT Systems

In developing the goals of the Community Resource Directory pilot, the Project Team felt strongly about including a direct connection to a state agency system that would be seamless and allow the consumer to make application to that agency's programs. Connection to Iowa Workforce Development's (IWD) system containing its common intake document was selected and has been developed as part of the pilot. As a result, the ability to apply for IWD services over the Internet is available to anyone with Internet access and will be available at public access sites in each SDA as it is expanded.

The Project Team hopes that other state government agencies recognize the potential for reaching out to Iowa citizens with their services by linking their automated application systems with Galileo. The benefits could include faster service provision to their customers and a shifting of state employee time from processing applications to helping the customer/client obtain needed services.

The cost of linking to Galileo would vary with each agency, so it is impossible to estimate what this might be. Funding for the link would be the responsibility of the agency, although there may be grants for foundations willing to participate. It is the hope of the Project Team that agencies providing direct services to the public will investigate the benefits and proceed to develop those links.

Attachment

Cost of Expanding Galileo Data Base to SDA 1

LaCross I&R (edit/update)				
Total number of providers		383		
Estimated number of programs	383 x 3=	1149		
Estimated number of sites	383 x 2=	<u>766</u>		
Total number of records		2298		
Dubuque (edit/update)				
Total number of providers		480		
Estimated number of programs	480x3=	1440		
Estimated number of sites	480x2=	<u>960</u>		
Total number of records		2880		
subtotal rocords			5178	
Chickasaw/ Delaware (new records)				
Estimated Number of providers		30		
Estimated Number of programs	30x3=	90		
Estimated Number of sites	30x2=	<u>60</u>		
Total number of records		180	<u>180</u>	
Total Records			5358	
Time to enter into Galileo:				
Edit/update existing provider/prog/site	.15x5178=	776.7	hours	
One new provider listing	.25x30=	7.5	hours	
One new program listing	.5hr x 90=	45	hours	
One new site listing	.25 x 60=	<u>15</u>	hours	
		844.2	hours	
Time to convert to 5th grade level:				
Total records	5358x.15=	803.7	hours	
Other entry:				
Assign taxonomy code to one program	.25 x 2679=	669.75	hours	
Assign key words to one program	.25 x 2679=	669.75	hours	
Perform quality control of record	.1 x 5358=	<u>535.8</u>	hours	
total hours		1875.3	hours	3523.2
Time to call/mail info update request-all providers:				
One provider (2-5 programs)	.75 x893=	669.75	hours	<u>669.75</u>
Total hours			4192.95	

Cost based on $12 per hour employee	4192.95 x 12=	$50,315		

Estimated Hardware/software costs			
Public access sites	$800 x 31=	$24,800	
For LaCross to be Hub		$1,948	
32 bit stand alone counselor software		$1,500	
Total		$28,248	

Total costs	
Employee costs	$50,315
Hardware/software costs	$28,248
Conversion software program for La Cross records	$3,000
total	$81,563

Cost of Expanding Galileo Data Base to SDA 2

Mercy Family Health Line I&R (edit/update)			
Total number of providers		85	
Estimated number of programs	85 x 3=	255	
Estimated number of sites	85 x 2=	170	
Total number of records		510	510
Floyd/Franklin (new records)			
Estimated Number of providers		33	
Estimated Number of programs	33x3=	99	
Estimated Number of sites	33x2=	66	
Total number of records		198	198
Total Records			708

Time to enter into Galileo:			
Edit/update existing provider/prog/site	.15x510=	76.5	hours
One new provider listing	.25x33=	8.25	hours
One new program listing	.5 x 99=	49.5	hours
One new site listing	.25 x 66=	16.5	hours
		150.75	hours
Time to convert to 5th grade level:			
Total records	708 x.15=	106.2	hours
Other entry:			
Assign taxonomy code to one program	.25 x 354=	88.5	hours

Assign key words to one program	.25 x 354=	88.5	hours	
Perform quality control of record	.1 x 708=	<u>70.8</u>	hours	
total hours		247.8	hours	504.75

Time to call/mail info update request-all providers:				
One provider (2-5 programs)	.75 x118=	88.5	hours	<u>88.5</u>

Total hours		593.25

Cost based on $12 per hour employee	593.25 x 12=	$7,119

Estimated Hardware/software costs		
Public access sites	$800 x 23=	$18,400
For Mercy to be Hub:		$1,948
32 bit stand alone counselor software		$1,500
Total		$21,848

Total costs	
Employee costs	$7,119
Hardware/software costs	$21,848
Conversion software program for Mercy records	<u>$3,000</u>
total	$31,967

Cost of Expanding Galileo Data Base to SDA 4

Total number of providers		65	
Estimated number of programs	65x 3=	195	
Estimated number of sites	65 x 2=	<u>130</u>	
Total number of records		390	

Time to enter into Galileo:				
Edit/update existing provider/prog/site	.15 x 390=	58.5	hours	58.5

Time to convert to 5th grade level:				
Total records	390 x.15=	58.5	hours	58.5

Other entry:				
Assign taxonomy code to one program	.25 x 195=	48.75	hours	
Assign key words to one program	.25 x 195=	48.75	hours	
Perform quality control of record	.1 x 390=	<u>39</u>	hours	
total hours		136.5	hours	136.5

Time to call/mail info update request-all providers:				
One provider (2-5 programs)	.75 x 65=	48.75	hours	<u>48.75</u>

Total hours				302.25

Cost based on $12 per hour employee	302.25 x 12=	$3,627	

Estimated Hardware/software costs			
Public access sites	$800 x12=	$9,600	
For Spenser to be Hub		$1,948	
32 bit stand alone counselor software		$1,500	
Total		$13,048	

Total costs		
Employee costs	$3,627	
Hardware/software costs	$13,048	
Conversion software program for Spenser records	<u>$3,000</u>	
total	$19,675	

Estimated number of sites	65 x 2=	130	
Total number of records		390	

Time to enter into Galileo:				
Edit/update existing provider/prog/site	.15 x 390=	58.5	hours	58.5

Time to convert to 5th grade level:				
Total records	390 x.15=	58.5	hours	58.5

Other entry:				
Assign taxonomy code to one program	.25 x 195=	48.75	hours	
Assign key words to one program	.25 x 195=	48.75	hours	
Perform quality control of record	.1 x 390=	39	hours	
total hours		136.5	hours	136.5

Time to call/mail info update request-all providers:				
One provider (2-5 programs)	.75 x 65=	48.75	hours	48.75

Total hours			302.25

Cost based on $12 per hour employee	302.25 x 12=	$3,627	

Estimated Hardware/software costs			
Public access sites	$800 x12=	$9,600	
For Spenser to be Hub		$1,948	
32 bit stand alone counselor software		$1,500	
Total		$13,048	

Total costs		
Employee costs	$3,627	
Hardware/software costs	$13,048	
Conversion software program for Spenser records	$3,000	
total	$19,675	

Cost of Expanding Galileo Data Base to SDA 5

Buena Vista (edit/update)			
Total number of providers		20	
Estimated number of programs	20 x 3=	60	
Estimated number of sites	20 x 2=	40	
Total number of records		120	120

All other counties (new records)		
Estimated Number of providers		131
Estimated Number of programs	131 x 3=	393
Estimated Number of sites	131 x 2=	262

Total number of records		786	<u>786</u>
Total Records			906

Time to enter into Galileo:

Edit/update existing provider/prog/site	.15 x 120=	18 hours	
One new provider listing	.25 x131=	32.75 hours	
One new program listing	.5 x 393=	196.5 hours	
One new site listing	.25 x 262=	<u>65.5</u> hours	
		312.75 hours	312.75

Time to convert to 5th grade level:

Total records	906 x.15=	135.9 hours	135.9

Other entry:

Assign taxonomy code to one program	.25 x 453=	113.25 hours	
Assign key words to one program	.25 x 453=	113.25 hours	
Perform quality control of record	.1 x 906=	<u>90.6</u> hours	
total hours		317.1 hours	317.1

Time to call/mail info update request-all providers:

One provider (2-5 programs)	.75 x 151=	113.25 hours	<u>113.25</u>
Total hours			566.25

Cost based on $12 per hour employee	566.25 x 12=	$6,795	

Estimated Hardware/software costs

Public access sites	$800 x 29=	$23,200	
For Hub		$1,948	
32 bit stand alone counselor software		$1,500	
Total		$26,648	

Total costs

Employee costs	$6,795	
Hardware/software costs	$26,648	
Conversion software program for Spenser records	<u>$3,000</u>	
total	$36,443	

Cost of Expanding Galileo Data Base to SDA 6

All counties (new records)

Estimated Number of providers		87

Estimated Number of programs	87 x 3=	261
Estimated Number of sites	87 x 2=	174
Total number of records		522

Time to enter into Galileo:

One new provider listing	.25 x 87=	21.75	hours	
One new program listing	.5 x 261=	130.5	hours	
One new site listing	.25 x 174=	43.5	hours	
		195.75	hours	195.75

Time to convert to 5th grade level:

Total records	522 x.15=	78.3	hours	78.3

Other entry:

Assign taxonomy code to one program	.25 x 261=	65.25	hours	
Assign key words to one program	.25 x 261=	65.25	hours	
Perform quality control of record	.1 x 522=	52.2	hours	
total hours		182.7	hours	182.7

Time to call/mail info update request-all providers:

One provider (2-5 programs)	.75 x87=	65.25	hours	65.25

Total hours				522

Cost based on $12 per hour employee	522 x 12=	$6,264	

Estimated Hardware/software costs

Public access sites	$800x31=	$24,800
For Hub		$1,948
32 bit stand alone counselor software		$1,500
Total		$28,248

Total costs	
Employee costs	$6,264
Hardware/software costs	$28,248
total	$34,512

Cost of Expanding Galileo Data Base to SDA 7

All counties (new records)

Estimated Number of providers		525
Estimated Number of programs	525 x 3=	1575
Estimated Number of sites	525 x 2=	1050
Total number of records		3150

Time to enter into Galileo:				
One new provider listing	.25 x 525=	131.25	hours	
One new program listing	.5 x 1575=	787.5	hours	
One new site listing	.25 x 1050=	262.5	hours	
		1181.25	hours	1181.25

Time to convert to 5th grade level:				
Total records	3150 x.15=	472.5	hours	472.5

Other entry:				
Assign taxonomy code to one program	.25 x 1575=	393.75	hours	
Assign key words to one program	.25 x 1575=	393.75	hours	
Perform quality control of record	.1 x 3150=	315	hours	
total hours		1102.5	hours	1102.5

Time to call/mail info update request-all providers:				
One provider (2-5 programs)	.75 x 525=	393.75	hours	393.75

Total hours				3150

Cost based on $12 per hour employee	3150 x 12=	$37,800	

Estimated Hardware/software costs			
Public access sites	$800x31=	$24,800	
For Hub		$1,948	
32 bit stand alone counselor software		$1,500	
Total		$28,248	

Total costs		
Employee costs	$37,800	
Hardware/software costs	$28,248	
total	$66,048	

Cost of Expanding Galileo Data Base to SDA 9

Clinton I&R (edit/update)			
Total number of providers		500	
Estimated number of programs	500 x 3=	1500	
Estimated number of sites	500 x 2=	1000	
Total number of records		3000	3000

Davenport (edit/update)			
Total number of providers		700	
Estimated number of programs	700 x 3=	2100	
Estimated number of sites	700 x 2=	1400	
Total number of records		4200	4200

subtotal rocords			7200
Muscatine (new records)			
Estimated Number of providers		45	
Estimated Number of programs	45 x 3=	135	
Estimated Number of sites	45 x 2=	90	
Total number of records		270	270
Total Records			7470
Time to enter into Galileo:			
Edit/update existing provider/prog/site	.15 x 7200=	1080 hours	
One new provider listing	.25 x 45=	11.25 hours	
One new program listing	.5 x 135=	67.5 hours	
One new site listing	.25 x 90=	22.5 hours	
		1181.25 hours	1181.25
Time to convert to 5th grade level:			
Total records	7470 x.15=	1120.5 hours	1120.5
Other entry:			
Assign taxonomy code to one program	.25 x 3735=	933.75 hours	
Assign key words to one program	.25 x 3735=	933.75 hours	
Perform quality control of record	.1 x 7470=	747 hours	
total hours		2614.5 hours	2614.5
Time to call/mail info update request-all providers:			
One provider (2-5 programs)	.75 x1245=	933.75 hours	933.75
Total hours			4729.5
Cost based on $12 per hour employee	4729.5 x 12=	$56,754	
Estimated Hardware/software costs			
Public access sites	$800x30=	$24,000	
For Hub		$1,948	
32 bit stand alone counselor software		$1,500	
Total		$27,448	
Total costs			
Employee costs	$56,754		
Hardware/software costs	$27,448		
total	$84,202		

Proposed Budget - Expansion & Sustaning Galileo in SDA 10

Expense	10/1/98 to 6/30/99	7/1/99 to 6/30/00	7/1/00 to 6/30/01
Data manager	$21,780	$29,040	$29,040
Evaluation, reports, marketing materials	$9,700	$13,000	
Utility bill insert	$3,735	$2,435	$2,435
Starter Kit for rollout	$1,400		
Tech assist for rollout	$2,500	$5,000	
total	$39,115	$49,475	$31,475

Cost of Expanding Galileo Data Base to SDA 11

Ames and Des Moines I&R (edit/update)

Total number of providers		3444	
Estimated number of programs	3444 x 3=	10,332	
Estimated number of sites	3444 x 2=	6888	
Total number of records		20,664	20,664

Carroll/Audubon/Guthrie/Jasper (new records)

Estimated Number of providers		83	
Estimated Number of programs	83 x 3=	249	
Estimated Number of sites	83 x 2=	166	
Total number of records		498	498
Total Records			21,162

Time to enter into Galileo:

Edit/update existing provider/prog/site	.15 x 20664=	3099.6	hours	
One new provider listing	.25 x 83=	20.75	hours	
One new program listing	.5 x 249=	124.5	hours	
One new site listing	.25 x 166=	41.5	hours	
		3286.35	hours	3,286

Time to convert to 5th grade level:

Total records	21162 x.15=	3174.3	hours	3,174

Other entry:				
Assign taxonomy code to one program	.25 x 10581=	2645.25	hours	
Assign key words to one program	.25 x 10581=	2645.25	hours	
Perform quality control of record	.1 x 21162=	2116.2	hours	
total hours		7406.7	hours	7,407

Time to call/mail info update request-all providers:				
One provider (2-5 programs)	.75 x 3527=	2645.25	hours	2,645
Total hours				13,226

Cost based on $12 per hour employee	13226 x12=	$158,712	

Estimated Hardware/software costs			
Public access sites	$800 x 74=	$59,200	
For Hub		$1,948	
32 bit stand alone counselor software		$1,500	
Total		$62,648	

Total costs		
Employee costs	$158,712	
Hardware/software costs	$62,648	
total	$221,360	

Cost of Expanding Galileo Data Base to SDA 12

All counties (new records)				
Number of providers		233		
Estimated Number of programs	233 x 3=	699		
Estimated Number of sites	233 x 2=	466		
Total number of records		1398		1398

Time to enter into Galileo:				
One new provider listing	.25 x 233=	58.25	hours	
One new program listing	.5 x 699=	349.5	hours	
One new site listing	.25 x 466=	116.5	hours	
		524.25	hours	524.25

Time to convert to 5th grade level:				
Total records	1398 x.15=	209.7	hours	209.7

Other entry:				
Assign taxonomy code to one program	.25 x 699=	174.75	hours	
Assign key words to one program	.25 x 699=	174.75	hours	
Perform quality control of record	.1 x 1398=	139.8	hours	

total hours		489.3 hours	489.3
Time to call/mail info update request-all providers:			
One provider (2-5 programs)	.75 x 233=	174.75 hours	174.75
Total hours			1398
Cost based on $12 per hour employee	1398 x 12=	$16,776	
Estimated Hardware/software costs			
Public access sites	$800x27=	$21,600	
For Sioux City to be Hub		$1,948	
32 bit stand alone counselor software		$1,500	
Total		$25,048	
Total costs			
Employee costs	$16,776		
Hardware/software costs	$25,048		
total	$41,824		

Cost of Expanding Galileo Data Base to SDA 13

Pottawattamee I&R (edit/update)			
Total number of providers		113	
Estimated number of programs	113 x 3=	339	
Estimated number of sites	113 x 2=	226	
Total number of records		678	678
All other counties (new records)			
Number of providers		103	
Estimated Number of programs	103 x 3=	309	
Estimated Number of sites	103 x 2=	206	
Total number of records		618	618
Total Records			1296
Time to enter into Galileo:			
Edit/update existing provider/prog/site	.15 x 678=	101.7 hours	
One new provider listing	.25 x 103=	25.75 hours	
One new program listing	.5 x 309=	154.5 hours	
One new site listing	.25 x 206=	51.5 hours	
		333.45 hours	333.45
Time to convert to 5th grade level:			
Total records	1296 x.15=	194.4 hours	194.4
Other entry:			
Assign taxonomy code to one program	.25 x 648=	162 hours	

Assign key words to one program	.25 x 648=	162	hours	
Perform quality control of record	.1 x 1296=	<u>129.6</u>	hours	
total hours		453.6	hours	453.6

Time to call/mail info update request-all providers:				
One provider (2-5 programs)	.75 x 216=	162	hours	<u>162</u>
Total hours				1143.45

Cost based on $12 per hour employee	1143.45 x 12=	$13,721

Estimated Hardware/software costs		
Public access sites	$800 x 28=	$22,400
For Sioux City to be Hub		$1,948
32 bit stand alone counselor software		$1,500
Total		$25,848

Total costs	
Employee costs	$13,721
Hardware/software costs	$25,848
total	$39,569

Cost of Expanding Galileo Data Base to SDA 14

Estimated Number of providers		85	
Estimated Number of programs	85 x 3=	255	
Estimated Number of sites	85 x 2=	<u>170</u>	
Total number of records		510	<u>510</u>

Time to enter into Galileo:				
One new provider listing	.25 x 85=	21.25	hours	
One new program listing	.5 x 255=	127.5	hours	
One new site listing	.25 x 170=	<u>42.5</u>	hours	
		191.25	hours	191.25

Time to convert to 5th grade level:				
Total records	510 x.15=	76.5	hours	76.5

Other entry:				
Assign taxonomy code to one program	.25 x 255=	63.75	hours	
Assign key words to one program	.25 x 255=	63.75	hours	
Perform quality control of record	.1 x 510=	<u>51</u>	hours	
total hours		178.5	hours	178.5

Time to call/mail info update request-all providers:

One provider (2-5 programs)	.75 x 85=	63.75 hours	63.75
Total hours			510
Cost based on $12 per hour employee	510 x 12=	$6,120	

Estimated Hardware/software costs

Public access sites	$800 x 24=	$19,200
For Hub		$1,948
32 bit stand alone counselor software		$1,500
Total		$22,648

Total costs

Employee costs	$6,120
Hardware/software costs	$22,648
total	$28,768

Cost of Expanding Galileo Data Base to SDA 15

Estimated Number of providers		165	
Estimated Number of programs	165 x 3=	495	
Estimated Number of sites	165 x 2=	330	
Total number of records		990	990

Time to enter into Galileo:

One new provider listing	.25 x 165=	41.25 hours	
One new program listing	.5 x 495=	247.5 hours	
One new site listing	.25 x 330=	82.5 hours	
		371.25 hours	371.25

Time to convert to 5th grade level:

Total records	990 x.15=	148.5 hours	148.5

Other entry:

Assign taxonomy code to one program	.25 x 495=	123.75 hours	
Assign key words to one program	.25 x 495=	123.75 hours	
Perform quality control of record	.1 x 990=	99 hours	
total hours		346.5 hours	346.5

Time to call/mail info update request-all providers:

One provider (2-5 programs)	.75 x 165=	123.75 hours	123.75
Total hours			990
Cost based on $12 per hour employee	990 x 12=	$11,880	

Estimated Hardware/software costs

Public access sites	$800 x 24=	$19,200	
For Hub		$1,948	
32 bit stand alone counselor software		$1,500	
Total		$22,648	

	Total costs	
Employee costs	$11,880	
Hardware/software costs	$22,648	
total	$34,528	

Cost of Expanding Galileo Data Base to SDA 16

Burlington I&R (edit/update)			
Total number of providers		417	
Estimated number of programs	417 x 3=	1251	
Estimated number of sites	417 x 2=	834	
Total number of records		2502	2502
Louisa/Henry/Lee (new records)			
Estimated Number of providers		80	
Estimated Number of programs	80 x3=	240	
Estimated Number of sites	80 x 2=	160	
Total number of records		480	480
Total Records			2982
Time to enter into Galileo:			
Edit/update existing provider/prog/site	.15 x 2502=	375.3 hours	
One new provider listing	.25 x 80=	20 hours	
One new program listing	.5 x 240=	120 hours	
One new site listing	.25 x 160=	40 hours	
		555.3 hours	555.3
Time to convert to 5th grade level:			
Total records	2982 x.15=	447.3 hours	447.3
Other entry:			
Assign taxonomy code to one program	.25 x 1491=	372.75 hours	
Assign key words to one program	.25 x 1491=	372.75 hours	
Perform quality control of record	.1 x 2982=	298.2 hours	
total hours		1043.7 hours	1043.7
Time to call/mail info update request-all providers:			
One provider (2-5 programs)	.75 x 497=	372.75 hours	372.75
Total hours			2419.05

Cost based on $12 per hour employee	2419.05 x 12=	$29,029
Estimated Hardware/software costs		
Public access sites	$800 x16=	$12,800
For Burlington to be Hub		$1,948
32 bit stand alone counselor software		$1,500
Total		$16,248

Total costs	
Employee costs	$29,029
Hardware/software costs	$16,248
Conversion software program for Burlington record	$3,000
total	$48,277